



BOULT ■ CUMMINGS®
CONNERS ■ BERRY PLC

Henry Walker
(615) 252-2363
Fax (615) 252-6363
Email hwalker@boultoncummings.com

December 1, 2005

Ron Jones, Chairman
Tennessee Regulatory Authority
460 James Robertson Pkwy.
Nashville, TN 37219

Re: *Application of ESG Pipeline (JC), LLC for a Certificate of Convenience
and Necessity to Operate a Processed Methane Gas Distribution System in
Johnson City, TN.*
Docket Number: 05-00244

Dear Chairman Jones:

Enclosed are the responses of ESG Pipeline to the staff's supplemental data requests. As requested, we have enclosed five hard copies and one CD. The information is submitted in a format that can be included in the three-ring notebook containing the company's responses to the staff's first requests.

If you have any questions, feel free to call Kristin McNeish (812-492-3702) or me (252-2363).

Very truly yours,

BOULT, CUMMINGS, CONNERS & BERRY, PLC

By:


Henry Walker

HW/djc
Enclosures



FINANCIAL:

1. Provide copies of the financing agreements in place that will provide ESG Pipeline the funding for the build-out and maintenance of the pipeline. If the financing agreements are not in place, provide the date these agreements will be executed and furnish a copy of the agreements to the Authority as soon as available.

As stated in our initial response Question 12, Financing of the pipeline project has not been finalized. The two most likely financing scenarios are:

1. Loan from Energy Systems Group, LLC
 2. Loan from Vectren Capital a parent company subsidiary.
- Current financing scenarios do not anticipate third party.

In any case, under either of these scenarios the pipeline will be funded through an equity cash infusion from Energy Systems Group, LLC or Vectren Capital. Conventional 3rd party financing documents will not be used.

PIPELINE SAFETY:

2. **Question 17** Will any portion of the proposed pipeline be located above ground? If so, will this section be constructed of HDPE or other material?

None of the jurisdictional pipeline will be located above ground.

PIPELINE SAFETY:

3. **Question 19** Will cathodic protection be applied to the tracer wire? If yes, what type of protection will be applied?

ESG will install a copper trace wire with the HDPE pipe. ESG will also install 3# anodes at 1000 ft intervals for the trace current.

PIPELINE SAFETY:

4. **Question 20** Regarding gas analysis:

- a. What type of gas analysis is being performed on the gas delivered to the end user?

The Processed Methane will be tested for BTU content, H₂S, Oxygen, and Nitrogen.

- b. Are the piping materials compatible with the gas constituents?

Pipe to be used will be 6" PE 3408 with an SDR of 9. The piping materials are compatible with the gas constituents.

- c. Do the gas constituents pose any potential hazard to personnel (i.e. H₂S)?

The gas constituents do not pose any additional hazards to personnel. Non methane organics and H₂S will be removed prior to injection into the pipeline.

- d. Is or will a report regarding the gas analysis be available for our review? If a report is now available, please provide.

A gas analysis is not available for the processed methane at this time. ESG has determined that due to the concentration of H₂S in the raw, landfill gas a H₂S removal system will be incorporated into the gas processing facility that will reduce the H₂S content to ≤ 10 PPM. The gas will then be reodorized for delivery to the pipeline.

ESG considers its methods used to process methane gas to be proprietary since revealing them could erode our competitive advantage over other processors. Placing the gas analysis in the public record could reveal this proprietary process to our competitors. Additional information concerning gas analysis will have to be under a Confidentiality or Secrecy Agreement with the TRA.

PIPELINE SAFETY:

5. **Question 21** Regarding odorization of gas:

- a. Please explain what type of electronic monitoring will be employed regarding odorization.
- b. Will the monitoring be based upon the weight of remaining odorant, odorant injection rate or chemical analysis?

The control system utilizes a flow rate input signal provided by a flow computer or other flow monitoring device, to inject odorant at the desired injection rate proportional to the flow of gas in the pipeline. Values entered into the controller by the operator are used to calculate the time between strokes of the pump. These operator input values include; the desired odorant injection rate (Mg/m³), pump displacement setting (cc/stroke), and odorant density (g/cc). A meter will measure the odorant temperature and the volume of odorant injected by the pump, the controller adjusts the stroke rate to ensure that the desired amount of odorant (Mg/m³) is injected into the pipeline. The controller receives a signal from the meter verifying the amount of odorant that has been injected.

- c. Will an odorometer be used to sample the gas?

ESG Pipeline will conduct periodic sniff tests using an odorometer to check odorant levels as required in 49CFR192.625f.

PIPELINE SAFETY:

6. **Question 23** What will be the design pressure of the pipeline when operating at 120 degrees Fahrenheit? Please refer to 49 CFR Part 192.121.

Through final design of the facility, ESG has determined that the temperature of the gas will not exceed 100 degrees F. Pipe to be used will be 6" PE 3408 with an SDR of 9. Based on the information listed in the manufacturers design specifications document, and using the design formulas and guidelines found in 49CFR192.121, the pipeline design pressure has been calculated to be 124 psig.

PIPELINE SAFETY:

7. **Question 26** Please clarify your answer pertaining to the Maximum Allowable Operating Pressure (MAOP) of the pipeline. Refer to 49 CFR Part 192.123 (e) regarding limitations on HDPE pipeline pressures. What is the proposed side dimension ratio (SDR) of the proposed HDPE pipeline?

ESG Pipeline now realizes that it used incorrect pipeline pressure information when formulating its original response to this question and wishes to amend its response. Pipe to be used will be 6" PE 3408 with an SDR of 9 and the MAOP will be 124 psig.

PIPELINE SAFETY:

8. **Question 27** Is this your proposed MAOP?

MAOP is proposed to be 124 psig.

PIPELINE SAFETY:

9. **Question 28** – Where are the Mountain Home Energy Center and Diversified Energy Services, Inc. personnel located? How quickly can they respond to perform pipeline repairs or to an incident that may occur during and after normal working hours including weekends?

ESG has two office locations in Johnson City, Tennessee including the Mountain Home Energy Center, which is located on the campus of the James H. Quillen VA Hospital. This facility is manned 24 hours per day, 365 days per year and is the ending location of the pipeline. The facility is approximately 4 miles from the landfill. Personnel at the Mountain Home Energy Center will be trained and be able to monitor the pipeline operation remotely and respond to any pipeline emergencies as needed. Additionally, local qualified contractor(s) will be engaged to provide additional support as needed in support of an emergency and/or normal operations and maintenance needs.

Diversified Energy Services, Inc. (DESI) of Atlanta, Ga. will assist ESG in the engineering and construction management of the pipeline construction phase and provide operations and maintenance administrative and field services, regulatory compliance and employee qualification and training services to ESG for its pipeline operations on an on-going basis.